

IN THE CLAIMS

Please amend the claims as follows:

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Claim 1 (Currently Amended): A flat light source unit comprising:

a light source comprising a plurality of light source elements for emitting different wavelengths of light;

temperature control means including a cooling device for keeping the light source at constant temperature;

a light mixer for mixing light emitted by the plurality of light source elements;

a light detector for detecting light from the light mixer capable of detecting a plurality of different wavelengths of light; and

light source control means for controlling luminance of each of the plurality of light source elements kept at a constant temperature by the temperature control means, based on values detected by the light detector so that the flat light source unit has substantially constant chromaticity, wherein the temperature control means controls the temperature of the light source independently of the control of the light source by the light source control means.

Claim 2 (Currently Amended): A flat light source unit according to claim 1, wherein the light detector detects a plurality of different wavelength ranges, and the light source control means controls luminance of each of the plurality of light source elements so that each detected value in the plurality of wavelength ranges approaches each given value.

Claim 3 (Currently Amended): A flat light source unit according to claim 1, further comprising a temperature detector for detecting temperature of the light source, wherein the

temperature control means operates so that a value detected by the temperature detector approaches a given value.

Claim 4 (Cancelled).

Claim 5 (Currently Amended): A flat light source unit according to claim 1, further comprising a temperature detector for detecting temperature of the light source, wherein the temperature control means changes a temperature value to be maintained in the light source based on a temperature value detected by the temperature detector, and the light source control means controls each of the plurality of light source elements to have luminance corresponding to the temperature value to be maintained.

Claim 6 (Currently Amended): A flat light source unit according to claim 1, wherein the light source comprises a plurality of light source elements emitting light with wavelengths corresponding to each of N (N is a natural number) number of colors, the light detector comprises N number of optical sensors corresponding to each of N number of colors, and the light source control means controls each of the plurality of light source elements so that each value detected by the N number of optical sensors approaches each given value.

Claims 7-10 (Cancelled).

Claim 11 (Currently Amended): A display device comprising:

a flat light source unit; and

a display panel for displaying images by controlling light emitted by the flat light source unit;

the flat light source unit comprising:

a light source comprising a plurality of light source elements for emitting different wavelengths of light;

temperature control means including a cooling device for keeping the light source at constant temperature;

a light mixer for mixing light emitted by the plurality of light source elements;

a light detector for detecting light from the light mixer capable of detecting a plurality of different wavelengths of light; and

light source control means for controlling luminance of each of the plurality of light source elements kept at a constant temperature by the temperature control means, based on values detected by the light detector so that the flat light source unit has substantially constant chromaticity, wherein the temperature control means controls the temperature of the light source independently of the control of the light source by the light source control means.

Claims 12-14 (Cancelled).

Claim 15 (Currently Amended): A flat light source unit according to claim 1, wherein the temperature control means includes a heating device.

Claim 16 (Previously Presented): A display device according to claim 11, wherein the temperature control means includes a heating device.

Claim 17 (Currently Amended): A flat light source unit comprising:

a light source comprising a plurality of light source elements for emitting different wavelengths of light;

temperature control means including a cooling device for keeping the light source at a substantially constant temperature;

a light mixer for mixing light emitted by the plurality of light source elements;

a light detector for detecting light from the light mixer capable of detecting a plurality of different wavelengths of light; and

light source control means for controlling luminance of each of the plurality of light source elements kept at a substantially constant temperature by the temperature control means, based on values detected by the light detector so that the flat light source unit has substantially constant chromaticity, wherein the temperature control means controls the temperature of the light source independently of the control of the light source by the light source control means.

Claim 18 (Currently Amended): A display device comprising:

a flat light source unit; and

a display panel for displaying images by controlling light emitted by the flat light source unit;

the flat light source unit comprising:

a light source comprising a plurality of light source elements for emitting different wavelengths of light;

temperature control means including a cooling device for keeping the light source at a substantially constant temperature;

a light mixer for mixing light emitted by the plurality of light source elements;

a light detector for detecting light from the light mixer capable of detecting a plurality of different wavelengths of light; and

light source control means for controlling luminance of each of the plurality of light source elements kept at a substantially constant temperature by the temperature control means, based on values detected by the light detector so that the flat light source unit has substantially constant chromaticity, wherein the temperature control means controls the temperature of the light source independently of the control of the light source by the light source control means.

Claim 19 (Currently Amended): A flat light source unit according to claim 17, wherein the temperature control means includes a heating device.

Claim 20 (Previously Presented): A light source unit according to claim 18, wherein the temperature control means includes a heating device.